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1 to synchronize times for slave nodes by using a synchronization message bearing a
2 reference time stamp according to a time scale maintained by the master node.
3 (Col. 9, lines 31-41). Thus, Strong is primarily concerned with techniques for
4 calculating and improving the "accuracy of synchronization." (Col. 18, lines 53-
5 57). Considerable time is spent teaching how to calculate synchronization times
6 accurately. For example, Col. 10, lines 35-68 show equations used to calculate the
7 synchronization time.

8 Undy is directed to the amount of "on-chip space" needed for "an
9 instruction cache system." (Col. 1, lines 40-42). Undy teaches that the cache can
10 be separated into a "small cache" dedicated to instructions and a "larger cache"
11 used for both instructions and data. A "prefetch buffer" is used to transfer
12 instructions from the larger cache to the smaller cache with minimal delay. (Col 1,
13 lines 48-58). Undy is concerned with providing an "instruction cache" for a
14 processor that is "fast" and "is relatively small so that it may be placed internal to
15 an integrated circuit processor." (Col. 4, lines 40-43)

16 The Examiner cites the combination of Strong and Undy in the § 103
17 rejection of all the independent Claims (e.g., Claims 1, 15, 23, and 29).
18 Independent Claims 1, 15, 23, and 29 of Applicants' application, each recite
19 language that defines various ways for synchronizing data among a plurality of
20 web servers. For example, Claim 1 recites:

21
22 1. (Once Amended) A method for synchronizing data
23 among a plurality of web servers each of the plurality of web
24 servers is coupled to a common data server, the method
25 comprising:

retrieving a scheduled activation time from the data server;
prior to the scheduled activation time, retrieving updated
data into staging caches in the plurality of web servers; and

1 at the scheduled activation time, copying the updated data
2 from the staging caches within each of the plurality of web servers
3 to an active cache within each of the plurality of web servers,
4 respectively.

5 The cited references do not teach or suggest this method. In fact, neither
6 Strong nor Undy appear to have much relevance to Applicants' Claims.

7 Neither reference teaches, for example, (i) "maintaining data
8 synchronization among a plurality of web servers using a common data server,"
9 (ii) "retrieving a scheduled activation time from the data server" (iii) "retrieving
10 updated data into staging caches in the plurality of web servers;" or (iv) "at the
11 scheduled activation time, copying the updated data from the staging caches
12 within each of the plurality of web servers to an active cache within each of the
13 plurality of web servers, respectively." (See, e.g., Claim 1).

14 Again, Strong teaches techniques for synchronizing local times maintained
15 by the nodes within a network. (See, i.e., Abstract, Lines 1-3). Nowhere is Strong
16 remotely concerned with data synchronization techniques as claimed by using
17 "staging caches" and "active caches" in conjunction with a "scheduled activation
18 time" as recited in Claim 1.

19 Similarly, Undy is merely concerned with providing "a two level
20 instruction cache for providing fast instruction access much of the time using
21 minimal penalty for an instruction cache miss." (See Undy, Col. 4, lines 39-43).
22 Again, Undy is concerned with cache size and speed on a chip; not "data
23 synchronization" among a plurality of web servers as recited in Applicants'
24 independent Claims.
25

1 Furthermore, the combination of Strong and Undy also fail to teach using
2 “a staging cache,” “active cache” and “a scheduled activation time” to synchronize
3 data among a “plurality of web servers.” Strong and Undy are entirely silent as to
4 these features in Claim 1 as well as the other independent claims.

5 In paragraph 4 of the Office Action, the Examiner argues that “Strong
6 discloses a method of synchronization among a plurality of nodes (web servers) in
7 a network wherein each node is coupled to a common master node (data server).”
8 Applicants respectfully disagree with the Examiner’s generalization that Strong’s
9 use of the word “synchronization” has anything to do with the type of data
10 synchronization recited in Applicants’ claims.

11 The “synchronization” Strong is referring to is the “synchronization of
12 times” maintained at the plurality of nodes. (See i.e., line 1-3 of the Strong
13 Abstract). Applicants’ independent Claims, on the other hand, use the term
14 “synchronization” in the context of “synchronizing data” among a plurality of
15 “web servers,” not the “synchronizing of local times maintained at nodes” as
16 taught by Strong.

17 The Examiner appears to go on to argue that the “synchronization message”
18 described in Strong is the same as the “scheduled activation time” recited in the
19 independent Claims. Applicants respectfully disagrees with this argument,
20 because the “synchronization message” described in Strong has to do with clock
21 synchronization at a node (see, i.e., Abstract) and does not remotely teach or
22 suggest using the message for purposes of indicating a time for copying data from
23 a “staging cache” to an “active cache” at the “scheduled activation time” as recited
24 in Applicants’ Claims.

1 The Examiner admits that “Strong fails to explicitly disclose “[r]etrieving
2 updated data into the staging caches in the plurality of web servers; “[c]opying
3 data from the staging cache of each web server to an active cache of each web
4 server.” For these features, however, the Examiner (on page 3 of the Office
5 Action) argues that Undy discloses a system for synchronizing a network
6 including “retrieving updated data into the staging cache (larger cache) (col. 1,
7 lines 20-22, 45-48, col. 2 lines 10-13, col. 5 lines 19-20)” and “[c]opying data
8 from the staging cache (larger cache) to an active cache (smaller cache) (col. 3,
9 lines 5-7, col. 7, lines 1-2, col. 5, lines 1-4).

10 The Applicants’ are, respectfully, unable to find any basis to support the
11 Examiner’s interpretation of the alleged teachings of Undy.

12 Again, Undy is concerned with cache memory system architectures used in
13 conjunction with processors and chip size (see, i.e., Col 4, lines 39-43). There is
14 no discussion that remotely teaches or suggests anything close to a system for
15 synchronizing data among a plurality of web servers as recited in Applicants’
16 Claims.

17 Furthermore, Undy is devoid of anything that remotely teaches or suggests
18 synchronizing data among “web servers” by using a “staging cache,” “active
19 cache” and a “scheduled activation time.” The “large” and “small” cache
20 described in Undy and referenced by the Examiner for support of her argument, in
21 fact, has nothing to do with synchronizing data among a “plurality of web servers”
22 as recited in Applicants’ claims. Rather the “large” and “small” caches in Undy
23 are used for storing instructions needed by a processor and are separated into
24 “large” and “small” caches for the purpose of speeding up access to the
25 instructions by the processor and for reducing chip size. (See, i.e., Undy Col. 2,

1 lines 26-41 and Col. 4, lines 39-43). Undy's "large" and "small" caches have
2 absolutely nothing in common with a "staging cache" and an "active cache" used
3 for purposes of synchronizing data among a plurality of web servers as recited in
4 Applicants' Claims. Again, Undy is concerned with chip space and access speed
5 of instructions to the processor, whereas Applicants' Claims are directed to web
6 servers and using a "staging cache" and an "active cache" for synchronizing data
7 among the servers.

8 Accordingly, Applicants respectfully believe that the two primary
9 references cited by the Examiner (Strongy and Undy) as the basis for rejecting all
10 independent Claims were not properly interpreted and do not remotely teach or
11 suggest what the Examiner alleges they teach.

12 Because neither Strong and/or Undy teach or suggest what the Examiner
13 purports they teach or suggest, it is not possible to combine Strong and Undy to
14 arrive at Applicants' claimed invention. Additionally, it is not possible to combine
15 any of the other references cited by the Examiner with Strong and Undy to arrive
16 at the solutions claimed by the Applicants, because of the failure of Strong and/or
17 Undy to teach or suggest what the Examiner purports they teach or suggest.
18 Accordingly, none of the references cited in the Office Action, teach, suggest or
19 provide any motivation to arrive at the solutions claimed by the Applicants.

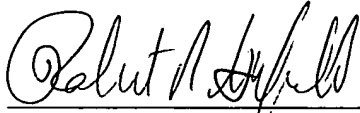
20 Therefore, based on all of the above comments, the Examiner has failed to
21 establish a *prima facie* case of obviousness with respect to independent Claims 1,
22 15, 23, and 29 and any claims dependent thereon. For these reasons alone,
23 Applicants respectfully request that the § 103 rejection of all the claims be
24 withdrawn.
25

1 **Conclusion**

2 The Applicants respectfully request the rejections be withdrawn and solicits
3 a Notice of Allowance for Claims 1-33. If any issues remain that prevent issuance
4 of this Application, the Examiner is urged to contact the undersigned attorney
5 before issuing a subsequent Action.

6
7
8 Date: 10/21/02

Respectfully Submitted,

9 By: 
10 Robert R. Axenfeld
11 Reg. No. 37,276
12 (509) 324-9256 ext. 239

1 **MARKED UP VERSION OF PENDING CLAIMS UNDER 37 C.F.R. 1.121(C)(1)(ii):**

2 Please amend claim 1 and 29 as follows and in accordance with 37 C.F.R.
3 1.121(c)(1)(ii), by which the Applicants submit the following marked up version
4 only for claims being changed by the current amendment, wherein the markings
5 are shown by brackets (for deleted matter) and/or underlining (for added matter):
6

7 1. (Once Amended) A method of synchronizing data among a plurality of web
8 servers, wherein each of the plurality of web servers is coupled to a common data
9 server, the method comprising:

10 retrieving a scheduled activation time from the data server;

11 prior to the scheduled activation time, retrieving updated data into staging
12 caches in the plurality of web servers; and

13 at the scheduled activation time, copying the updated data from the staging
14 caches in each of the plurality of [each] web servers to an active cache within each
15 of the plurality of web servers, respectively.
16
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18 29. (Once Amended) A method of synchronizing data among a plurality of web
19 servers, wherein each of the plurality of web servers is coupled to a common data
20 server, the method comprising:

21 providing a scheduled activation time from the data server to each of the
22 plurality of web servers;

23 communicating updated data into a staging cache in each of the plurality of
24 web servers prior to the scheduled activation time; and
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1 copying data from the staging cache [of] in each of the plurality of web
2 servers to an active cache in each of the plurality of the web servers, respectively,
3 at the scheduled activation time.

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